

AMENDMENTS TO CLAIMS

Claim 1 (currently amended): A method of preventing charge buildup during fabrication of a semiconductor device, the method comprising:

coupling a first transistor to a first metal wire on a first metal level of a semiconductor device, the first transistor being configured to protect a gate of a second transistor from charge buildup, a gate of the first transistor being left floating;
forming a second metal wire in the device; and
switching ON the first transistor to discharge charges accumulated on the first metal wire during formation of the second metal wire[.]; and
coupling the gate of the first transistor to ground after formation of the second metal wire.

Claim 2 (currently amended): The method of claim 1 ~~further comprising: wherein~~
~~coupling~~ the gate of the first transistor is coupled to ground on a topmost metal level of the device.

Claim 3 (original): The method of claim 1 wherein the second metal wire is on a second metal level of the device, the second metal level being over the first metal level.

Claim 4 (original): The method of claim 1 wherein coupling the first transistor to the first metal wire comprises:

connecting a drain of the first transistor to the first metal wire;
connecting a source of the first transistor to ground; and
connecting the gate of the first transistor to the metal wire by way of a coupling capacitor.

Claim 5 (original): The method of claim 4 wherein a value of the coupling capacitor is selected by design to switch ON the first transistor at a predetermined gate voltage.

Claim 6 (original): The method of claim 1 wherein the second metal wire is formed by physical vapor deposition.

Claim 7 (original): The method of claim 1 wherein the second transistor comprises an MOS transistor.

Claim 8 (canceled)

Claim 9 (canceled)

Claim 10 (original): The method of claim 2 wherein the topmost metal level is a second metal level over the first metal level.

Claim 11 (original): The method of claim 1 wherein the first transistor comprises an nfet.

Claim 12 (canceled)

Claim 13 (canceled)

Claim 14 (canceled)

Claim 15 (canceled)

Claim 16 (canceled)

Claim 17 (canceled)

Claim 18 (currently amend): A method of protecting an integrated circuit gate during a metallization process, the method comprising:

switching ON a first transistor to discharge charges accumulated on an interconnect line during a metallization process to protect a gate of a second transistor coupled to the interconnect line, a gate of the first transistor being left floating during the metallization process[.]; and

coupling the gate of the first transistor to ground after the metallization process.

Claim 19 (canceled)

Claim 20 (currently amended): The method of claim 18 wherein the metallization process comprises physical vapor deposition.

Claim 21 (new): A method of preventing charge buildup during fabrication of a semiconductor device, the method comprising:

coupling a first transistor to a first metal wire on a first metal level of a semiconductor device, the first transistor being configured to protect a gate of a second transistor from charge buildup, a gate of the first transistor being left floating;

forming a second metal wire in the device;

switching ON the first transistor to discharge charges accumulated on the first metal wire during formation of the second metal wire;

forming a second metal level over the first metal level;

forming a third metal level over the second metal level; and

coupling the gate of the first transistor to a third metal wire on the third metal level by way of a plurality of vertically stacked vias.

Claim 22 (new): The method of claim 21 wherein the third metal wire is connected to ground.